Environmental Laboratory Licensure Application

PART E – Director Approval

Arizona Department of Health Services

Laboratory Licensure & Certification

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Part E lists director approved methods available to all laboratories. In addition, the director approval process is outlined in the following pages. These methods are current as of **June 2015.**

Director Approved Methods (Refer to A.A.C. R9-14-610.B for references.) AIR = Air program. SDW = Drinking water. WW = Wastewater. SW = Solid, Liquid, and Hazardous Waste.

Description	Program	Reference	Method	Fee
Aluminum	AIR	Note 9	IO-3.4	$10
Aluminum	AIR	Note 10	IO-3.5	$26
Antimony	AIR	Note 9	IO-3.4	$10
Antimony	AIR	Note 10	IO-3.5	$26
Arsenic	AIR	Note 9	IO-3.4	$10
Arsenic	AIR	Note 10	IO-3.5	$26
Arsenic	AIR	Note 14	Method 29 - ICP	$10
Arsenic	AIR	Note 14	Method 29- ICPMS	$26
Barium	AIR	Note 9	IO-3.4	$10
Barium	AIR	Note 10	IO-3.5	$26
Barium	AIR	Note 14	Method 29 - ICP	$10
Barium	AIR	Note 14	Method 29- ICPMS	$26
Beryllium	AIR	Note 9	IO-3.4	$10
Beryllium	AIR	Note 10	IO-3.5	$26
Beryllium	AIR	Note 14	Method 29 - ICP	$10
Beryllium	AIR	Note 14	Method 29- ICPMS	$26
Bismuth	AIR	Note 9	IO-3.4	$10
Boron	AIR	Note 9	IO-3.4	$10
Cadmium	AIR	Note 9	IO-3.4	$10
Cadmium	AIR	Note 10	IO-3.5	$26
Cadmium	AIR	Note 14	Method 29 - ICP	$10
Cadmium	AIR	Note 14	Method 29- ICPMS	$26

Calcium	AIR	Note 9	IO-3.4	$10
Carbon Dioxide, Methane, Nitrogen, & Oxygen	AIR	Note 7	Method 3C	$393
Cesium	AIR	Note 9	IO-3.4	$10
Chromium	AIR	Note 9	IO-3.4	$10
Chromium	AIR	Note 10	IO-3.5	$26
Chromium	AIR	Note 14	Method 29 - ICP	$10
Chromium	AIR	Note 14	Method 29- ICPMS	$26
Cobalt	AIR	Note 9	IO-3.4	$10
Cobalt	AIR	Note 10	IO-3.5	$26
Cobalt	AIR	Note 14	Method 29 - ICP	$10
Cobalt	AIR	Note 14	Method 29- ICPMS	$26
Copper	AIR	Note 9	IO-3.4	$10
Copper	AIR	Note 10	IO-3.5	$26
Copper	AIR	Note 14	Method 29 - ICP	$10
Copper	AIR	Note 14	Method 29- ICPMS	$26
Digestion of Ambient Matter	AIR	Note 8	IO-3.1	$7
Germanium	AIR	Note 9	IO-3.4	$10
Gold	AIR	Note 9	IO-3.4	$10
Indium	AIR	Note 9	IO-3.4	$10
Iron	AIR	Note 9	IO-3.4	$10
Lanthanum	AIR	Note 9	IO-3.4	$10
Lithium	AIR	Note 9	IO-3.4	$10
Lead	AIR	Note 9	IO-3.4	$10
Lead	AIR	Note 10	IO-3.5	$26
Lead	AIR	Note 14	Method 29 - ICP	$10

Lead	AIR	Note 14	Method 29- ICPMS	$26
Magnesium	AIR	Note 9	IO-3.4	$10
Manganese	AIR	Note 9	IO-3.4	$10
Manganese	AIR	Note 10	IO-3.5	$26
Manganese	AIR	Note 14	Method 29 - ICP	$10
Manganese	AIR	Note 14	Method 29- ICPMS	$26
Mercury	AIR	Note 9	IO-3.4	$10
Mercury	AIR	Note 14	Method 29 – CVAA	$52
Mercury Total Vapor-Phase	AIR	Note 46	Method PS-12B	$ 393
Molybdenum	AIR	Note 9	IO-3.4	$10
Molybdenum	AIR	Note 10	IO-3.5	$26
Nickel	AIR	Note 9	IO-3.4	$10
Nickel	AIR	Note 10	IO-3.5	$26
Nickel	AIR	Note 14	Method 29 - ICP	$10
Nickel	AIR	Note 14	Method 29- ICPMS	$26
Niobium	AIR	Note 9	IO-3.4	$10
Nonmethane Organic Compounds	AIR	Q	Method 25C	$393
Palladium	AIR	Note 9	IO-3.4	$10
Phosphorus	AIR	Note 9	IO-3.4	$10
Phosphorus	AIR	Note 14	Method 29 – ICP	$10
Platinum	AIR	Note 9	IO-3.4	$10
Particulate Matter as PM 2.5 in Atmosphere	AIR	Note 24	Appendix L	$393
Particulate Matter as PM 10-2.5 in Atmosphere	AIR	Note 23	Appendix O	$393

Potassium	AIR	Note 9	IO-3.4	$10
Rhenium	AIR	Note 9	IO-3.4	$10
Rhodium	AIR	Note 9	IO-3.4	$10
Ruthenium	AIR	Note 9	IO-3.4	$10
Samarium	AIR	Note 9	IO-3.4	$10
Selenium	AIR	Note 9	IO-3.4	$10
Selenium	AIR	Note 10	IO-3.5	$26
Selenium	AIR	Note 14	Method 29 - ICP	$10
Selenium	AIR	Note 14	Method 29- ICPMS	$26
Silicon	AIR	Note 9	IO-3.4	$10
Silver	AIR	Note 10	IO-3.5	$26
Silver	AIR	Note 14	Method 29 - ICP	$10
Silver	AIR	Note 14	Method 29- ICPMS	$26
Sodium	AIR	Note 9	IO-3.4	$10
Strontium	AIR	Note 9	IO-3.4	$10
Tantalum	AIR	Note 9	IO-3.4	$10
Tellurium	AIR	Note 9	IO-3.4	$10
Thallium	AIR	Note 9	IO-3.4	$10
Thallium	AIR	Note 10	IO-3.5	$26
Thallium	AIR	Note 14	Method 29 - ICP	$10
Thallium	AIR	Note 14	Method 29- ICPMS	$26
Thorium	AIR	Note 10	IO-3.5	$26
Tin	AIR	Note 9	IO-3.4	$10

Titanium	AIR	Note 9	IO-3.4	$10
Tungsten	AIR	Note 9	IO-3.4	$10
Uranium	AIR	Note 10	IO-3.5	$26
Vanadium	AIR	Note 9	IO-3.4	$10
Vanadium	AIR	Note 10	IO-3.5	$26
VOCs	AIR	Note 4	TO-14A	$152
Volatile Organic Compounds	AIR	Note 39	TO-3	$152
VOCs in Vapor	AIR	S	8260B AZ Vapor	$152
Ytrrium	AIR	Note 9	IO-3.4	$10
Zinc	AIR	Note 9	IO-3.4	$10
Zinc	AIR	Note 10	IO-3.5	$26
Zinc	AIR	Note 14	Method 29 - ICP	$10
Zinc	AIR	Note 14	Method 29- ICPMS	$26
Zirconium	AIR	Note 9	IO-3.4	$10
Alkaline Digestion for Hexavalent Chromium	SW	F	3060A	$7
Aluminum	SW	F	6020A	$26
Antimony	SW	F	6020A	$26
Arsenic	SW	F	6020A	$26
Barium	SW	F	6020A	$26
Beryllium	SW	F	6020A	$26
Cadmium	SW	F	6020A	$26
Calcium	SW	F	6020A	$26
Chromium	SW	F	6020A	$26
Cobalt	SW	F	6020A	$26
Copper	SW	F	6020A	$26
Iron	SW	F	6020A	$26
Lead	SW	F	6020A	$26

Magnesium	SW	F	6020A	$26
Manganese	SW	F	6020A	$26
Microwave Extraction	SW	Note1	3546	$7
n-Hexane	SW	F	8260B	$0
Mercury	SW	F	7473	$152
Mercury	SW	F	7474	$152
Mercury	SW	F	6020A	$26
Nickel	SW	F	6020A	$26
Nitroaromatics, Nitramines, and Nitrate Esters	SW	F	8330B	$116
Perchlorate	SW	F	6850	$152
Phosphorus	SW	F	3051A	$7
Potassium	SW	F	6020A	$26
Selenium	SW	F	6020A	$26
Silver	SW	F	6020A	$26
Sodium	SW	F	6020A	$26
Thallium	SW	F	6020A	$26
Vanadium	SW	F	6020A	$26
Zinc	SW	F	6020A	$26
Bromate	SDW	Note 22	302.0	$26
Chlorate (For UCMR testing only)	SDW	Z	300.1	$26
Chlorine, Residual	SDW	Note 38	334.0	$39
Chlorine Dioxide	SDW	C1	10126	$76
Cobalt (For UCMR testing only)	SDW	A1	200.8	$26
Cryptosporidium & Giardia	SDW	Note 44	1623.1	$381

Cyanide, Available	SDW	Note 40	OIA-1677	$76
Cyanide, Available	SDW	Note 20	D6888-04	$76
1,4-Dioxane by GC/MS (For UCMR testing only)	SDW	Note 26	522	$152
E. coli and Coliforms by Colitag	SDW	Note5	Colitag	$152
E. coli by Membrane Filtration Two Step	SDW	C2	9222B/9222G	$76
Heterotrophic Plate Count (For Bottled Water testing only)	SDW	C2	9215D	$152
Haloacetic Acids	SDW	Note 43	557	$152
			Instrument IC/MS/MS	$194
Hexavalent Chromium by IC (For UCMR testing only)	SDW	Note 27	218.7	$116
Hormones by LC/MS/MS (For UCMR testing only)	SDW	Note 25	539	$152
Molybdenum (For UCMR testing only)	SDW	A1	200.8	$26
Perfluorinated Compounds by LC/MS/MS (For UCMR testing only)	SDW	Note 28	537	$152
Radium 226	SDW	Note18	Gamma-ray HPGE or Ge(Li)	$206
Radium 228	SDW	Note18	Gamma-ray HPGE or Ge(Li)	$206
Silica	SDW	C2	4500 SiO2-C	$76
Strontium (For UCMR testing only)	SDW	A1	200.8	$26
Total Coliforms and *E. coli* by Readycult	SDW	Note2	Readycult Coliforms 100 P/A	$152
Total Coliforms and *E. coli* by m-ColiBlue24	SDW	C1	HACH 10029	$228
Uranium	SDW	Note3	D5174-97, 02	$206
Uranium	SDW	Note 30	D6239-09	$206
Uranium	SDW	Note 29	7500 U-C	$206
Vanadium (For UCMR testing only)	SDW	A1	200.8	$26

VOCs by GC-MS Benzene Carbon tetrachloride Chlorobenzene 1,2-dichlorobenzene 1,4-dichlorobenzene 1,2-dichloroethane cis-Dichloroethylene trans-Dichloroethylene Dichloromethane 1,2-Dichloropropane Ethylbenzene Styrene Tetrachloroethylene 1,1,1-Trichloroethane Trichloroethylene Toluene 1,2,4-Trichlorobenzene 1,1-Dichloroethylene 1,1,2-Trichlorethane Vinyl chloride Xylenes, total Total Trihalomethanes Dibromochloropropane (DBCP) Ethylene dibromide (EDB)	SDW	Note17	EPA 524.3	$152
VOCs by GC/MS – Additional Compounds Required by Other Programs	SDW	Note17	EPA 524.3	$26
Acrolein and Acrylonitrile	WW	Note 33	624	$152
Aluminum	WW	Note 37	200.5	$10
Ammonia (18th Edition)	WW	Note 15	SM 4500-NH3B&C	$76
Ammonia	WW	Note19	HACH 10205	$39
Antimony	WW	Note 37	200.5	$10
Antimony	WW	Note 45	1638	$26
Arsenic	WW	Note 37	200.5	$10
Barium	WW	Note 37	200.5	$10
Beryllium	WW	Note 37	200.5	$10
Boron	WW	Note 37	200.5	$10
Boron	WW	A1	200.8	$26
Biochemical Oxygen Demand (BOD5)	WW	Note 31	5210-2001	$152
Biochemical Oxygen Demand (BOD5)	WW	Note 35	1003-8-2009	$152
Bromide	WW	Z	300.1	$26

Cadmium	WW	Note 37	200.5	$10
Cadmium	WW	Note 45	1638	$26
Calcium	WW	A1	200.8	$26
Calcium	WW	Note 37	200.5	$10
Carbamate and Urea Pesticides	WW	Note 33	632	$116
Carbonaceous Biochemical Oxygen Demand (BOD5)	WW	Note 31	5210-2001	$152
Carbonaceous Biochemical Oxygen Demand (CBOD5)	WW	Note 36	1004-8-2009	$152
Chloride	WW	Z	300.1	$26
Chloride	WW	C2	4500-Cl D	$39
Chlorinated Herbicides	WW	Note 33	615	$152
Chlorine, Total	WW	C2	4500-Cl E	$39
Chromium	WW	Note 37	200.5	$10
Chromium (VI) Hexavalent (IC method)	WW	A1	218.6	$26
Chromium (VI) Hexavalent (IC Method)	WW	C	3500-Cr E	$26
Chronic Toxicity on *Daphnia magna*	WW	Note	Lozarchak, J. 2001	$194
Copper	WW	C	3500-Cu E	$76
Copper	WW	Note 37	200.5	$10
Copper	WW	Note 45	1638	$26
Cryptosporidium	WW	Note 41	1622	$381
Cryptosporidium and Giardia	WW	Note 42	1623	$381
Cyanide, Available	WW	Note 20	D6888-04	$76
Cyanide, Total	WW	A2	335.4	$76
Cyanide, Total	WW	C2	4500-CN F	$76
Cyanide, Total	WW	Z9	QuikChem 10-204-00-1-X	$76
Dissolved Oxygen	WW	C1	10360	$26
Dissolved Oxygen	WW	Note 34	1002-8-2009	$26
E. coli by m-ColiBlue24	WW	C1	HACH 10029	$228
Enteric Virus in Sewage Sludge	WW	Note13	EPA 625/R-92/013	$381
Fecal Coliform by Colilert-18 (APP and Reuse only)	WW	C2	SM 9020B and 9223B	$152
Fecal Coliform by Colilert-18 (NPDES – ATP Permits only)	WW	C2	SM 9020B and 9223B	$152
Fecal Coliforms in Sludge by MTF	WW	Note11	EPA 1681	$228
Fluoride	WW	Z	300.1	$26

Gold	WW	A1	200.8	$26
Hardness (Sum of Ca and Mg)	WW	A1	200.8	$10
Hydrogen Sulfide	WW	C2	SM 4500-S^{2-} H	$10
Iron	WW	Note 37	200.5	$10
Iron	WW	A1	200.8	$26
Kjeldahl Total, Nitrogen	WW	C2	4500-NH3 D	$39
Kjeldahl Total, Nitrogen	WW	C2	4500-NH3 E	$39
Kjeldahl Total, Nitrogen (18^{th} edition)	WW	Note 16	SM4500-NH3B & C and NORG B	$115
Kjeldahl Total, Nitrogen	WW	I	ASTM D3590-89/02-A/B	$115
Lab Bench Scale Batch Digestion (Sludge)	WW	Note13	EPA 625/R-92/013	$76
Lead	WW	Note 37	200.5	$10
Lead	WW	Note 45	1638	$26
Magnesium	WW	A1	200.8	$26
Magnesium	WW	Note 37	200.5	$10
Manganese	WW	Note 37	200.5	$10
Mercury	WW	A1	200.7	$10
Mercury	WW	Note6	245.7	$152
Nickel	WW	Note 37	200.5	$10
Nickel	WW	Note 45	1638	$26
Nitrate	WW	Z	300.1	$26
Nitrate	WW	C2	4500-NO3 D	$39
Nitrate-Nitrite	WW	Z	300.1	$26
Nitrite	WW	Z	300.1	$26
Nitrite	WW	C2	4500-NO3 E	$76
Nitrite	WW	C2	4500-NO3 F	$76
Nitrite	WW	A2	353.2	$76
Oil and Grease	WW	Note 32	1664, Rev B	$76
Organochlorine Pesticides	WW	Note 33	608.1	$152
Organochlrine Pesticides	WW	Note 33	608.2	$152
Organohalide Pesticides and PCBs	WW	Note 33	617	$152
Organophosphorous Pesticides	WW	Note 33	614	$116

Organophosphorous Pesticides	WW	Note 33	614.1	$116
Organophosphorous Pesticides	WW	Note 33	622	$116
Orthophosphate	WW	Z	300.1	$26
Potassium	WW	A1	200.8	$26
pH (Hydrogen Ion)	WW	A	150.2	$39
Phenols	WW	A2	420.4	$116
Phosphorus	WW	A1	200.7	$10
Selenium	WW	Note 37	200.5	$10
Selenium	WW	Note 45	1638	$26
Silica	WW	Note 37	200.5	$10
Silica	WW	A1	200.7	$10
Salmonella in Sludge by MSRV Medium	WW	Note12	EPA 1682	$228
Silica	WW	A1	200.8	$26
Silver	WW	Note 37	200.5	$10
Silver	WW	Note 45	1638	$26
Sodium	WW	Note 37	200.5	$10
Sodium	WW	C	3500-Na D	$26
Sodium	WW	A1	200.8	$26
Sulfide	WW	C2	4500-S2 G	$39
Sulfate	WW	A2	375.2	$76
Sulfate	WW	Z	300.1	$26
Sulfate	WW	Note 21	D516-02	$76
Thallium	WW	Note 45	1638	$26
Thiophosphate Pesticides	WW	Note 33	622.1	$116
Tin	WW	Note 37	200.5	$10
Tin	WW	A1	200.8	$26
Titanium	WW	A1	200.7	$10
Titanium	WW	A1	200.8	$26
Triazine Pesticides	WW	Note 33	619	$116
Uranium	WW	A1	200.8	$26
Vanadium	WW	Note 37	200.5	$10

Volatile Suspended Solids	WW	C2	2540E	$30
Zinc	WW	Note 37	200.5	$10
Zinc	WW	Note 45	1638	$26

Note: Lozarchak, J. 2001. "Short-term Chronic Toxicity tests on *Daphnia magna* (survival and growth tests", USEPA.
Note1: SW-846 3546 "Microwave Extraction", Rev. 0. November 2000
Note2: Readycult Coliforms 100 Presence/Absence Test for Detection and Identification of Coliform Bacteria and *Escherichia coli* in Finished Waters, Version 1.1, January 2007
Note3: Standard Test Method for Trace Uranium in Water by Pulsed-Laser Phosphorimetry, ASTM 5174-97, 02
Note4: Determination Of Volatile Organic Compounds (VOCs) In Ambient Air Using Specially Prepared Canisters With Subsequent Analysis By Gas Chromatography referencing the Compendium Method TO-14A, EPA/625/R-96/010b
Note5: Colitag® Product as a Test for Detection and Identification of Coliforms and E. coli Bacteria in Drinking Water and Source Water as Required in National Primary Drinking Water Regulations, August 2001
Note6: EPA Method 245.7, Rev. 2.0, February 2005, EPA 821-R-05-001, For the Determination of Mercury by Cold Vapor Atomic Fluorescence Spectrometry
Note7: 40 CFR, Part 61, Appendix A, available at http://www.access.gpo.gov/nara/cfr/cfr-table-search.html
Note8: Compendium Method IO-3.1, Selection, Preparation and Extraction of Filter Material, EPA/625/R-96/010a, June 1999, available at http://www.epa.gov/ttn/amtic/files/ambient/inorganic/mthd-3-1.pdf
Note9: Compendium Method IO-3.4, Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma (ICP), EPA/625/R-96/01a, June 1999, available at http://www.epa.gov/ttn/amtic/files/ambient/inorganic/mthd-3-4.pdf
Note10: Compendium Method IO-3.5, Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma/Mass Spectroscopy (ICP/MS), EPA/625/R-96/01a, June 1999, available at http://www.epa.gov/ttn/amtic/files/ambient/inorganic/mthd-3-5.pdf
Note11: EPA Method 1681, July 2006, EPA-821-R-06-013, Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using A-1 Medium.
Note12: EPA Method 1682, July 2006, EPA-821-R-06-014, *Samonella* in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium.
Note13: EPA 625/R-92/013 – "White House Document" Environmental Regulations and Technology – Control of Pathogens and Vector Attraction in Sewage Revised July 2003, U.S. Environmental Protection Agency.
Note 14: Method 29, 40 CFR - Chapter I, Part 60. Determination of Metals Emissions From Stationary Sources.
Note 15: Ammonia by Nesslerization in Wastewater by Sm 4500-NH3 B&C by the American Public Health Association et al., Standard Methods for the Examination of Water and Wastewater (18th ed. 1992)
Note 16: Total Kjeldahl Nitrogen by SM 4500-N Org B, 4500-NH3 B & C by the American Public Health Association et al. Standard Methods of Examination of Water and Wastewater (18th ed. 1992)
Note 17: EPA Method 524.3, Rev. 1.0, June 2009, EPA Document #EPA 815-B-09-009 for the Measurement of Purgeable Organic Compounds in Drinking Water by Capillary Column Gas Chromatography/Mass Spectrometry.
Note 18: The Determination of Radium-226 and Radium-228 in Drinking Water by Gamma-ray Spectrometry Using HPGE Or Ge(Li) Detectors, "Revision 1.2, December 2004 Georgia Institute of Technology
Note 19: HACH Company Ammonia Method 10205, Revision 2.0, August 2008 (See Attached) for the determination of ammonia.
Note 20: ASTM-D6888-04, Standard Test Method for Available Cyanide with Ligand Displacement and Flow Injection Analysis (FIA) Utilizing Gas Diffusion Separation and Amperometric Detection, ASTM International, 100 Barr Harbor Drive P.O. Box C700, West Conshkhocken, Pa, 19428-2959
Note 21: ASTM-D516-02, Standard Test Method for Sulfate Ion in Water, ASTM International, 100 Barr Harbor Drive P.O. Box C700, West Conshkhocken, Pa, 19428-2959
Note 22: EPA Method 302.0: Determination of Bromate in Drinking Water Using Two-Dimensional Ion Chromatography with Suppressed Conductivity Detection. EPA 815-B-09-014, Office of Water, September 2009.
Note 23: 40 CFR 50 Appendix O, Reference Method for the Determination of Fine Particulate Matter as PM 2.5 in the Atmosphere
Note 24: 40 CFR 50 Appendix L, Reference Method for the Determination of Fine Particulate Matter as PM 2.5 in the Atmosphere
Note 25: EPA Method 539: Determination of Hormones in Drinking Water by Solid Phase Extraction (SPE) and Liquid Chromatography Electrospray Ionization Tandem Mass Spectrometry (LC-ESI-MS/MS), Office of Water, EPA Document No. 815-B-10-001, November 2010.
Note 26: EPA Method 522 Determination of 1,4-Dioxane in Drinking Water by Solid Phase Extraction (SPE) and Gas Chromatography Mass Spectrometery (GC/MS) with Selected Ion Monitoring (SIM), Version 1.0, September 2008, EPA/600/R-08/101.
Note 27: EPA Method 218.7: Determination of Hexavalent Chromium in Drinking Water by Ion Chromatography with Post-Column Derivatization and UV-Visible Spectroscopic Detection, Office of Water, EPA Document No. EPA 815-R-11-005, November 2011.
Note 28: EPA Method 537: Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometery (LC/MS/MS), Version 1.1, Septemeber 2009, EPA Document # EPA/600/R-08/092
Note 29: Uranium by SM 7500 U C, American Public Health Association et al. Standard Methods for the Examination of Water and Wastewater (21st ed. 2005), available from American Public Health Association
Note 30: ASTM D6239-09, Standard Test Method for Uranium in Drinking Water by High Resolution Alpha Liquid Scintillation Spectrometry, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken. PA 19428-2959
Note 31: Standard Methods for the Examination of Water and Wastewater, 21st edition, 2005, American Public Health Association et al., available from American Public Health Association
Note 32: EPA Method 1664, Revision B, n n-Hexane Extractable Material and Silica Gel Treated n-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, February 2010, EPA-821-R-10-001.
Note 33: EPA Clean Water Act Approved Industry-Specific Methods available at http://water.epa.gov/scitech/methods/cwa/industry.cfm

Note 34: In-Situ Incorporated Method 1002-8-2009 Dissolved Oxygen Measurement by Optical Probe, 2009, available from In-Situ Incorporated, 221 E. Lincoln Avenue, Ft. Collins, CO 80524, (970) 498-1500.

Note 35: In-Situ Incorporated Method 1003-8-2009 Biochemical Oxygen Demand (BOD) Measurement by Optical Probe, 2009, available from In-Situ Incorporated, 221 E. Lincoln Avenue, Ft. Collins, CO 80524, (970) 498-1500.

Note 36: In-Situ Incorporated Method 1004-8-2009 Carbonaceous Biochemical Oxygen Demand (CBOD) Measurement by Optical Probe, 2009, available from In-Situ Incorporated, 221 E. Lincoln Avenue, Ft. Collins, CO 80524, (970) 498-1500.

Note 37: EPA Method 200.5 Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma – Atomic Emission Spectrometry, Revision 4.2, October 2003, EPA/600/R-06/115

Note 38: EPA Method 334.0 "Determination of Residual Chlorine in Drinking Water using an On-line Chlorine Analyzer," August 2009. EPA 815-B-09-013. http://epa.gov/safewatermethods/analyticalmethods_ogwdw.html.

Note 39: EPA Method TO-3 Compendium of Methods for the Determination of Volatile Organic Compounds in Ambient Air (Second Edition, January 1999), EPA/625/R-96/010b. Available at http:/www.epa.gov/ttnamti1/files/ambient/airtox/to-3.pdf

Note 40: Method OIA-1677, DW Available Cyanide by Flow Injection, Ligand Exchange, and Amperometry, January, 2004. Available from: ALPKEM, A Division of OI Analytical, P.O. Box 9010, College Station, TX 77842-9010

Note 41: Cryptosporidium in Water by Filtration/IMS/FA (ambient water), EPA-821-R-05-001, December 2005, US EPA, available at http://water.epa.gov/scitech/methods/cwa/methods_index.cfm

Note 42: Cryptosporidium and Giardia in Water by Filtration/IMS/FA (ambient water), EPA-821-R-05-002, December 2005, US EPA, available at http://water.epa.gov/scitech/methods/cwa/methods_index.cfm

Note 43: Determination of Haloacetic Acids in Drinking Water by Ion Chromatography Electron Electrospray Ionization Tandem Mass Spectrometry, September, 2009. Available at http://water.epa.gov/scitech/drinkingwater/labcert/analyticalmethods_expedited.cfm.

Note 44: Cryptosporidium & Giardia in Water by Filtration/IMS/FA,2012 available at http://water.epa.gov/drink

Note 45: Determination of Trace Elements in Ambient Waters by Inductively Coupled Plasma Mass Spectrometry available at: http://water.epa.gov/scitech/methods/cwa/bioindicators/upload/2007_07_10_methods_method1638.pdf

Note 46: EPA Performance Specification PS-12B “Analysis of Vapor Phase Mercury Emissions from Stationary Sources Using a Sorbent Trap Monitoring System”. Available at http://www.epa.gov/ttnemc01/perfspec/ps-12B.pdf

2. Process for Director Approved Methods (A.A.C. R9-14-610.C.)
(This is a summary of the steps needed for approval, please refer to the rule cited for detailed instructions.)

Note: For a request for an alternate method or method alteration approval, there is a $50 fee payable to the Department of Health Services.

A. Request for approval of a different method or method alteration that is required by an EPA, ADEQ, the U.S. Food and Drug Administration or 9 A.A.C. 8.

1. Name, address, and telephone number of the licensee submitting the request.
2. Name, address, and telephone number of the laboratory for which approval is requested.
3. Identification of the parameter for which approval is requested.
4. Reference to the EPA, ADEQ, the U.S. Food and Drug Administration or 9 A.A.C. 8 that requires or authorizes the use of the method or method alteration for which approval is requested.

B. Request for approval of a different method or method alteration that is **not** required by an EPA or ADEQ statute or rule.

1. Name, address, and telephone number of the licensee submitting the request.
2. Name, address, and telephone number of the laboratory for which approval is requested.
3. Identification of the parameter for which approval is requested.
4. Written justification for using the method or method alteration for which approval is requested, including the following:

   a. A detailed description of the method or method alteration.
   b. References to published or other studies confirming the general applicability of the method or method alteration to the parameter.
   c. Reference to the EPA, ADEQ, the U.S. Food and Drug Administration or 9 A.A.C. 8 requirement to test the parameter.
   d. Data that demonstrates the performance of the method or method alteration in terms of accuracy, precision, reliability, ruggedness, ease of use, and ability to achieve a detection limit appropriate to the proposed use of the method or method alteration.

The Department, before approving a method or method alteration that is not required or authorized by EPA or ADEQ statute or rule, may require that the method or method alteration be performed by a designated laboratory to verify that the method or method alteration complies with (C)(2)(d)(iv).